CLAIMS

1. (Amended) An electrode structure for an iontophoresis device comprising: a backing having a substrate film having a molding portion, an electrode layer formed passing the outer circumferential portion from the inner bottom of the molding portion, and an insulating layer formed in at least the outer circumferential portion of the molding portion and also in the upper portion of the electrode layer; a conductive layer formed in the molding portion; and a cover member for covering the conductive layer and the insulating layer in a separable manner.

2. The electrode structure for the iontophoresis device according to claim 1, wherein an adhesive sheet is installed in the rear face of the substrate film of the backing.

3. The electrode structure for the iontophoresis device according to claim 1 or claim 2, wherein the sinking depth in the molding portion of the substrate film is in a range of 0.5 mm to 7.5 mm.

4. The electrode structure for the iontophoresis device according to any one of claims 1 to 3, wherein the molding angle in the molding portion of the substrate film is in a range of 5° to 70°.

5. The electrode structure for the iontophoresis device according to any one of claims 1 to 4, wherein the cover member is to seal the conductive layer between the insulating layer and itself in a separable manner, thereby allowing the conductive layer to be kept in a sealed state.

6. The electrode structure for the iontophoresis device

according to claim 5, wherein the separation mechanism between

the insulating layer and the cover member is interfacial separation.

7. The electrode structure for the iontophoresis device according to claim 6, wherein the 180 degree-peel strength between the insulating layer and the cover member is in a range of 100 g to 1,500 g per 15 mm.

8. An electrode structure for an iontophoresis device comprising: a backing having a substrate film provided with a molding portion having a dent, a flange portion formed in the outer circumferential portion of the molding portion, and a lead portion led out of the flange portion, an electrode layer formed from the inner bottom of the molding portion to the lead portion through the flange portion, and an insulating layer formed at least the flange portion and also in the upper portion of the electrode layer; a conductive layer formed in the molding portion; and a cover member for sealing the backing between the insulating layer and the material itself in a separable manner.

9. The electrode structure for the iontophoresis device according to claim 8, wherein the lead portion formed in the electrode layer is so composed as to be connected with the clip portion of a connection cord.

10. The electrode structure for the iontophoresis device according to in claim 8, wherein the lead portion formed in the electrode layer has an insertion inlet for a connector.

11. A method of producing an electrode structure for an iontophoresis device comprising (a) a step of printing a conductive layer and an insulating layer on a substrate film, (b) a step of forming a molding portion in the substrate film

in a manner that the insulating layer is positioned at least in the outer circumferential portion, (c) a step of disposing a conductive layer in the molding portion, (d) a step of supplying a cover member to the substrate film and sealing between the insulating layer and the cover member, and (e) a step of cutting the substrate film and the cover member in a predetermined shape.

12. The method of producing the electrode structure for the iontophoresis device according to claim 11, wherein at least the steps (b) to (e) are carried out in a continuous line.

13. The method of producing the electrode structure for the iontophoresis device according to claim 11 or claim 12, wherein the method further comprises a step of supplying an adhesive sheet to the rear face of the substrate film and cutting the sheet into a predetermined shape.

14. The method of producing the electrode structure for the iontophoresis device according to any one of claims 11 to 13, wherein the step of forming the molding portion is carried out while a convexity portion of a press die being butted to at least the electrode layer on the substrate film.

15. The method of producing the electrode structure for the iontophoresis device according to any one of claims 11 to 14, wherein the step of forming the molding portion in the substrate film is carried out by cold processing at a temperature lower than the thermal deformation.

16. The method of producing the electrode structure for the iontophoresis device according to any one of claims 11 to 15, wherein the step of disposing the conductive layer to the molding portion includes a step of promoting gelling of

conductive gel composing the conductive layer.

17. The method of producing the electrode structure for the iontophoresis device according to claim 16, wherein the step of promoting the gelling is to promote gelling by physical cross-linking by cooling or chemical cross-linking by light or heat.